

REMARKS

This Amendment is responsive to the Office Action mailed on July 27, 2007, reopening prosecution of the application (which had been on appeal) and rejecting claims 1, 3-14 and 30-36. The other pending claims 15-29 were withdrawn from consideration in response to an earlier restriction requirement. By this response claims 1, 3-14 and 30-36 are canceled and new claims 37-43 are added to the application. Examination and allowance of claims 37-43 are requested.

The Office Action rejected claims 10 and 13 under 35 U.S.C. §102 as being anticipated by the Michelson U.S. Patent 6,175,962. Claims 1, 3-5 and 30-36 were rejected under 35 U.S.C. §102 as being anticipated by the Harpell U.S. Patent 5,362,527. Claim 6 was rejected under 35 U.S.C. §103 as being unpatentable over the Harpell patent in view of the Groves U.S. Patent 5,087,516. Claim 14 was rejected under 35 U.S.C. §103 as being unpatentable over the Michelson patent in view of the Manne U.S. Patent 5,564,127. However, all the rejected claims have been canceled by this response and new claims 37-43 recite a cut resistant glove that is patentable over the structures shown in these patents.

In particular, the cut resistant glove recited by claims 37-43 includes first and second thermoplastic polymer hand-shaped layers and a cut resistant infrastructure element on at least portions of the first hand-shaped layer. Each cut resistant infrastructure element includes a thermoplastic polymer substrate having an array of small, hard, printed polymer plates. A heat seal seam between the polymer substrate and the first hand-shaped layer attaches the infrastructure element to the first hand-shaped layer with the plates facing the first hand-shaped layer. Another heat seal seam between the first and second layers attaches the first and second hand-shaped layers. The attached first and second layers form a hand-shaped cavity.

The cut resistance of the infrastructure elements is substantially greater than the cut resistance of the polymer substrate. Additional recited features of the printed polymer plates that provide this cut resistance, while at the same time retaining flexibility and tactility, are regular spacing, generally uniform thickness, non-overlapping, convex polygon shape, gap section separations, arrangement in a predetermined pattern free from extended-length

straight gap sections, a major dimension to minor dimension aspect ratio between about 3 and 1, gap widths substantially less than the lengths of the minor dimensions, and plate thicknesses substantially less than the minor dimension length. In addition to their superior functional characteristics, these gloves can be manufactured very efficiently.

The prior art of record does not teach or suggest gloves having these desirable structural and functional characteristics. The Michelson patent, for example, discloses a glove having segments (16) of generally solid, impermeable material between a first layer (12) and a second layer (14). But these impermeable segments are described as hard plastic or thin metal. There is no suggestion that they could be an array of hard printed plates on a substrate such as the cut resistant infrastructure recited in the applicant's claims. As noted above, these cut resistant infrastructures provide flexibility and tactility in addition to cut resistance.

The Harpell patent discloses a ballistic resistant fabric having non-metallic bodies mechanically affixed to a flexible substrate layer. These bodies are individually attached to the substrate layer. There is no suggestion that the non-metallic bodies can be small printed structures having the other recited features of the applicant's invention. Nor is there any suggestion that the non-metallic bodies can be incorporated into the recited glove structure with heat seal seams.


The Manne patent discloses a glove formed from rolled, warp knitted material (18) between a first glove (16) and a second glove member (20). The body armor shown in the Groves patent includes layers of hard beads, compressible material and flexible material. These materials, and the structures of the garments into which they are incorporated, are considerably different than the applicant's claimed glove.

In view of the significant structural differences between the applicant's glove and those shown in the prior art, and the important functional advantages provided by the glove, allowance of claims 37- 43 is requested.

Respectfully submitted,

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